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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,803

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Yen-Shuo Liao

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12/14/2005

MAGINOT, MOORE & BECK
BANK ONE CENTER/TOWER
1111 MONUMENT CIRCLE
INDIANAPOLIS, IN 46204

EXAMINER

GOINS, DAVETTA WOODS

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,803

Applicant(s)

LIAO ET AL

Examiner

Davetta W. Goins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/04, 6/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8-11 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishikawa et al. (US Pat. 6,447,448 B1).

In reference to claims 1, 17, Ishikawa discloses a) the claimed body configured to replace a portion of a mammalian joint, which is met by a prosthetic 300 having a joint member 302 which rotatably couples to socket member 304 (Figure 3), b) the claimed at least one sensor supported by said body, said sensor adapted to sense an ambient condition of the mammalian joint and to generate a condition signal indicative of the sensed condition, which is met by sensor 160 used to detect physical parameters such as pressure, movement, temperature and the like (col. 8, lines 1-21), and c) the claimed transmission element connected to said sensor to receive said condition signal and operable to transmit a signal indicative of said condition signal, which is met by rf transmitter 150 used to transmit sensed condition signals to a remote station 200 (col. 5, lines 44-67; Figure 2)..

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In reference to claim 2, Ishikawa discloses the claimed sensor is a temperature sensor and the ambient condition is temperature, which is met by sensor 160 used to detect physical parameters such as pressure, movement, temperature and the like (col. 8, lines 1-21).

In reference to claims 3, 5, Ishikawa discloses the claimed sensor is a pH sensor and the ambient condition is pH, which is met by the sensor 160 shown in FIG. 4A is readily adaptable by suitable reconfiguration to sense other physiological parameters such as pH, chemical parameters, and variables as described previously, and physical parameters such as pressure, movement, temperature and the like (col. 8, lines 1-21).

In reference to claim 4, Ishikawa discloses the claimed sensor is configured to determine the presence of a biological material transducer(s) 160 are fabricated on or near the surface of the ball 110 where exposure to a portion of a biological medium in which a parameter is to be sensed or affected by an actuator is better accommodated (col. 4, lines 57-67; col. 5, lines 1-19).

In reference to claim 6, Ishikawa discloses the claimed component of a joint prosthesis selected from the group of a hip prosthesis, a knee, prosthesis, a shoulder prosthesis and an elbow prosthesis, which is met by the sensor balls used in conjunction with an artificial hip joint implant (col. 8, lines 44-52).

In reference to claim 8, Ishikawa discloses the claimed transmission element includes a transmitter supported by said body and configured to transmit a signal to a receiver located

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outside the joint indicative of said condition signal, which is met by RF transmitter 150 transmitting a signal 251 to external device 200 (Fig. 2).

In reference to claims 9, 10, Ishikawa discloses the claimed transmission element includes an antenna and a power source providing power to said antenna, which is met by device 110 including a power coil 120 and power regulator 130 and RF transmitter 150 (Fig. 2).

In reference to claim 11, Ishikawa discloses the claimed power source is a passive power source, which is met by the power transmitter 220 directs low frequency electromagnetic radiation 221 to power and receive signals from the ball 110 (col. 5, lines 44-67; col. 6, lines 1-29).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 12-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. in view of Nelson (US Pat. 6,155,267).

In reference to claim 7, although Ishikawa does not specifically disclose the claimed transmission element includes an alarm, he does disclose that the ball 110 including the sensor

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160 are in communication with a remote station 200 that includes a CPU 230 and a display panel 247 such that a physical can determine what's been sensed by the ball 110 (col. 44-67; Figure 2). Nelson discloses an implantable medical device that includes sensors that monitor the patient's activity such as heart rate, blood pressure and temperature (col. 16, lines 47-53). Upon the implant detecting an alarm condition, the device will transmit a signal to an external communication device 20 (col. 17, lines 21-42). Since both Ishikawa and Nelson disclose implanted devices that include sensors and transmitters that communicate with external devices, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of transmitting an alarm signal, upon detecting a condition that has exceeded a threshold, as disclosed by Nelson, with the system of Ishikawa, such that the patient and/or doctor can determine real time alarm situations and can act immediately.

In reference to claims 12-16, 18, Ishikawa discloses a) the claimed endoprosthesis including a body configured to replace a portion of the joint, which is met by a prosthetic 300 having a joint member 302 which rotatably couples to socket member 304 (Figure 3), b) the claimed sensor supported by said body, said sensor adapted to sense an ambient condition of the mammalian joint and to generate a condition signal indicative of the sensed condition, which is met by sensor 160 used to detect physical parameters such as pressure, movement, temperature and the like (col. 8, lines 1-21), c) the claimed transmitter connected to said sensor to receive the condition signal and operable to transmit a transmission signal outside the joint indicative of said condition signal, which is met by rf transmitter 150 (Fig. 2), and d) the claimed receiver disposed outside the joint for receiving said transmission signal, which is met by external device

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200 including an rf receiver 244 for receiving signals from transmitter 150 and capable of displaying information on display 247 (Fig. 2). Ishikawa does not specifically disclose the claimed translation circuitry for translating said transmission signal to a human sensible signal. Nelson discloses an implantable medical device that includes sensors that monitor the patient's activity such as heart rate, blood pressure and temperature (col. 16, lines 47-53). Upon the implant detecting an alarm condition, the device will transmit a signal to an external communication device 20 (col. 17, lines 21-42). The alarm 31 may be activated based on change in state information and can be in the form of an audible alarm, a tactile alarm, or any other alarm for notifying the patient (col. 10, lines 11-20). Since both Ishikawa and Nelson disclose implanted devices that include sensors and transmitters that communicate with external devices, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of transmitting an alarm signal, upon detecting a condition that has exceeded a threshold, as disclosed by Nelson, with the system of Ishikawa, such that the patient and/or doctor can determine real time alarm situations and can act immediately.

5. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure as follows. Nappholz et al. (US Pat. 5,113,869), Cucchiaro et al. (US Pat. 5,518,008), Fischell et al. (US Pat. 6,272,379 B1), Scarantino et al. (US Pat. 6,402,689 B1) and Bloemer et al. (US Pat. 6,917,831 B2), which disclose implantable devices.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 571-272-2957.

The examiner can normally be reached on Mon-Fri with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Davetta W. Goins
Primary Examiner
Art Unit 2632



D.W.G.

December 9, 2005